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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/073,445 | 02/11/2002 | Yugao Zhang | 55025.3USPT | 4531 |

24238 7590 12/01/2004

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| EXAMINER |
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IZAGUIRRE, ISMAEL

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| ART UNIT | PAPER NUMBER |
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3765

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,445

Applicant(s)

ZHANG ET AL.

Examiner

Ismael Izaguirre

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 73-80 is/are allowed.
- 6) ☒ Claim(s) 57-59, 61, 63 and 67-72 is/are rejected.
- 7) ☐ Claim(s) 60, 62 and 64-66 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 2/11/02.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

CLAIMS

Summary

Claims 57,68,73 and 76-80 are the independent claims under consideration in this Office Action.

Claims 58-67 are the dependent claims under consideration in this Office Action.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 57,61,63,67,68,71 and 72 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bollag (4,214,319).

Bollag teaches a method of producing a wrinkle free seam in a garment. Bollag teaches placing a bonding element 81 (figure 8) or layer 17 (from column 6, line 22), which can be solid continuous film (column 13, lines 35-42), if a pattern is provided, or preferably can be dots or points, placed on or between garment components 11 and 12 (figure 1A). Bollag teaches sewing a set of stitches traversing through the bonding element and at least one of the garment component (figures 1B or 4 and 5, or from column 10, lines 6-18). Sufficient heat and pressure is provided to effect bonding of the adhesive to at least one garment component, where Bollag teaches that the bonding

element adhesive is activated with a temperature in the range of about 100 degrees Celsius and 170 degrees Celsius (from column 6, lines 14 and 15). Bollag teaches a garment where multiplicities of seam locations are preferred for use of the adhesive, figures 4-7, and where folded portions are included in the seam structure. Where the folds occur, that is where the components (which include lining components, as taught occurring in small amounts in the dorsal area. See column 10, line 37) are folded over and onto themselves, the adhesive at the seam are forms a U-shaped configuration (figure 1C, for example).

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 58,59,69 and 70 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bollag in view of Ishii et al. (4,659,615).

Bollag discloses the invention substantially as claimed. See above for specific explanations of the structural details of this document. Briefly, Bollag teaches a method for forming seams in garments including a melt adhesive sewn into the seam. Bollag teaches the adhesive being of the type, which is activated using heat and pressure for melting the adhesive into the seam. The melting point of the adhesive is taught at

Application/Control Number: 10/073,445

Art Unit: 3765

between 160 and 200 degrees Celsius. However, Bollag does not specifically suggest the adhesive as including particular peel strength.

Ishii et al. teach a polymer film for use in the textile industry (column 1, line 28) and where this particular adhesive is heat activated and has a melting point of between 160 and 200 degrees Celsius, as well (see column 2, line 52). Further, Ishii et al. teach the importance of the adhesion and peel strength of the melt adhesive in use (column 4, lines 46-60). Ishii et al. teach in their disclosure how particular peel strengths of a melt adhesive affect the integrity of the seam in a garment, and teaches specific peel strengths greater than .5 and 1.0 pounds per inch, and illustrates these in tables 1 and 3.

Accordingly, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to construct the melt adhesive of Bollag as including particular peel strengths, as noted in Ishii et al., for providing a positive bonding between the adhesive layer and the textile or garment layer. Providing such high peel strengths would assure the integrity of the seam in question and not allow the garment to "fall apart" because of a failed seam with low peel strength.

ALLOWABLE SUBJECT MATTER

Claims 73-80 are allowable over the prior art of record.

Claims 60,62 and 64-66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Application/Control Number: 10/073,445
Art Unit: 3765

PERTINENT CITATIONS

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fowler illustrates a garment with sewn portions and laminate strips for the seams. Off et al. Illustrate a patch including fusible strips. Schure et al. Illustrate adhesive compounds including teachings of peel strength. Reaney illustrates adhesive strips for use over seams in garments with a melting point of 200 to 400 degrees Celsius.

INQUIRIES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Izaguirre whose telephone number is (703) 308-0892. The examiner can normally be reached on M-F (8:30-6:00).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (703) 305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Application/Control Number: 10/073,445

Art Unit: 3765

Should you have questions on access to the Private PAIR system, contact the
Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ismael Izaguirre
Primary Examiner
Art Unit 3765

II

11/28/04